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EXAMINER

LOFFREDO, JUSTIN E

ART UNIT	PAPER NUMBER
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3744

NOTIFICATION DATE	DELIVERY MODE
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11/26/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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Office Action Summary	Application No. 10/594,916	Applicant(s) YABU ET AL.	
	Examiner JUSTIN LOFFREDO	Art Unit 3744	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 September 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,8-13 and 16-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8-13 and 16-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 September 2006 and 22 May 2009 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed September 09, 2010 has been entered. Claims 1, 4, 5, 8-13 and 16-24 are pending in the application.

Claim Objections

1. **Claims 4, 5, 11 and 13** are objected to because of the following informalities:

Consider claims 4 and 5. Each of these claims depends on "any one of claims 1-3," however claims 2 and 3 have been cancelled. This portion of each of claims 4 and 5 should be amended to read - -claim 1- -.

Consider claim 11. The phrase "which extend along a continuous lateral surfaces" (lines 14-15 of the claim) should be written - -which extend along a continuous lateral surface- - in order to clarify the claim.

Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the following must be shown or the feature(s) canceled from the claim(s): the compressor being disposed downstream in the air passageway of the casing, and the compressor disposed downstream of the first and second heat exchangers in the air passageway along the route of the air stream supplied to the indoor space (see claim 1, the last 3 lines of the claim). Currently, it does not appear that any of the drawings illustrate the compressor arranged in this manner; the drawings all appear to show the compressor arranged in the same compartment as an outlet fan, however the compressor does not appear to be in the air passageway in any embodiment of the invention. No new matter should be

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entered. It does not appear that any new matter would be entered because there is support for such an arrangement in the applicant's specification (see e.g. Specification at ¶ 19)

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 103

3. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
4. **Claims 1, 4, 5, 8 and 9** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harushige (JP Pub. No. 2003314856) in view of Jones (US Patent No. 2,526,874).

Consider claim 1. Harushige discloses a humidity control system for supplying either one of a dehumidified first air stream and a humidified second air stream to an indoor space and for

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discharging the other air stream to an outdoor space, wherein: the humidity control system comprises: a refrigerant circuit (70) which includes first and second adsorbent-supported heat exchangers (62) & (65), respectively, which are both fluidly connected in the refrigerant circuit (70); a box-shaped casing (11) internally having space through which air is capable of passing (corresponding to the claimed air passageway) in which the heat exchangers (62) & (65) are disposed; an air supplying fan and an air exhausting fan disposed in the casing (11) (paragraph [0031]); change mechanisms (30) (corresponding to the claimed switching mechanism) capable of changing the distribution route of air in the casing (11) depending on the circulation direction of the refrigerant in the refrigerant circuit (70) so that the first air stream is passed through one of the heat exchangers (62) or (65) that is functioning as an evaporator while the second air stream is passed through the other heat exchanger that is functioning as a condenser; wherein the casing (11) has an internal space divided into a indoor side space (43) (corresponding to the claimed first space) defined along a fan side lateral plate as a lateral plate of the casing (11), and a center space (50) and outdoor side space (40) (which combine to make up the remaining second space as claimed) (Fig. 1); wherein first and second heat exchangers, (62) and (65), respectively, are disposed in the second space (Fig. 1); and a compressor (71) and a four-way switching valve (73) (corresponding to the claimed reversal mechanism) (see e.g. paragraphs [0007]-[0012] & [0064-0066], annotated Fig. 1; Figs. 2, 9a & 9b).

Harushige fails to explicitly disclose that the compressor and reversal mechanism are disposed in the first space of the casing, where the compressor is disposed in the air passageway of the casing and downstream of the first and second heat exchangers along the route of the air stream supplied to the indoor space. Jones teaches a temperature control system having a

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compressor (26) disposed in a space so that the compressor (26) is in the air passageway of a casing and along the route of the air stream supplied to an indoor space (see e.g. col. 7, L 14-35; col. 8, L 5-24; Figs. 1, 5, 7). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the position of the compressor and reversal mechanism in the casing as disclosed by Harushige so that the compressor is disposed in the air passageway of the casing and along the route of the air stream supplied to the indoor space as taught by Jones, such that the compressor and reversal mechanism are disposed in the first space of the casing downstream of the first and second heat exchangers in order to effectively use the heat from the compressor to heat the air passing over the compressor and to deliver the heated air to the indoor area in a heating mode (see Jones, col. 7, L 14-35; col. 8, L 5-24).

While Harushige as modified explicitly discloses that the air supplying and exhausting fans are disposed in the right and left chambers, respectively, of the outdoor side space (40) of the second space (see Harushige, paragraph 31), Harushige as modified fails to explicitly disclose that the air supplying and air exhausting fans are or can be disposed, each in one chamber, of the indoor side space (43) that is the first space, so that the compressor and reversal mechanism are disposed between the air supplying fan and the air exhausting fan in the first space of the casing. It would have been an obvious matter of design choice, however, to modify the air supplying fan and the air exhausting fan to be positioned in the indoor side space rather than in the outdoor side space, so that the compressor and reversal mechanism are disposed between the two fans as claimed, because the applicant has not disclosed that doing so solves any stated problem or is used for any particular purpose, and it appears that moving the fans from the outdoor side space to the indoor side space of the humidity control system would allow the

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system to perform equally well as when the fans were disposed in the outdoor side space.

Moving the fans in this manner would not affect the passage of air over the compressor because as arranged, air will pass over the compressor to be heated and sent to the indoor space regardless of whether the fans are disposed in the outdoor area of the second space or in the indoor area that is the first space.

Consider claim 4. Harushige discloses that, in the casing (11), an outlet opening (14) and an inlet opening (16) are in fluid communication with the indoor space and another outlet opening (17) and another inlet opening (13) are in fluid communication with the outdoor space.

Harushige fails to specifically disclose ducts between each of the inlet and outlet openings; however it would have been an obvious mechanical expedient to one of ordinary skill in the art at the time of the invention to include ducts from the inlet and outlet openings in order to provide a guided passageway for the air to flow as is old and well known in the art. As evidenced by Kim (US Patent No. 5,911,751), an air guide duct (40) is incorporated into an air conditioning device (10) for guiding air blown by a fan (38) from an inlet (15) to an outlet (see Fig. 1 wherein the outlet is the opening including blades (42)) and into a conditioned space (col. 1, L 10-40; Fig. 1).

Consider claim 5. Harushige discloses that, in the casing (11), an outlet opening (14) and an inlet opening (16) are opened to provide direct fluid communication between the casing (11) and indoor space, and another outlet opening (17) and another inlet opening (13) are in fluid communication with outdoor space.

Harushige fails to specifically disclose ducts between the inlet and outlet openings; however it would have been an obvious mechanical expedient to one of ordinary skill in the art

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at the time of the invention to include ducts from the inlet and outlet openings in order to provide a guided passageway for the air to flow as is old and well known in the art. As evidenced by Kim (US Patent No. 5,911,751), an air guide duct (40) is incorporated into an air conditioning device (10) for guiding air blown by a fan (38) from an inlet (15) to an outlet (see Fig. 1 wherein the outlet is the opening including blades (42)) and into a conditioned space (col. 1, L 10-40; Fig. 1).

Consider claim 8. Harushige discloses that the casing (11) is shaped like a flattened box; and that the first and second heat exchangers (62) & (65), respectively, are arranged so as to allow the passage of air in a horizontal direction of the casing (11) (Figs. 1 & 2).

Consider claim 9. Harushige discloses that the casing (11) is shaped like a flattened box; and that the first and second heat exchangers (62) & (65), respectively, are arranged so as to allow the passage of air in a direction perpendicular to a horizontal direction of the casing (11) (Figs. 1 & 2).

5. **Claims 10-13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harushige and Jones as applied to claim 1, and further in view of Hosoda et al. (US Patent No. 3,805,542).

Consider claim 10. Harushige as modified discloses that the casing (11) is shaped like a flattened box (Harushige, Fig. 1), and that the fans are capable of drawing in air from a lateral side of a fan casing and delivering the air forward (Harushige, paragraph [0031]).

Harushige as modified fails to disclose that the fans are multi-blade fans disposed such that the center axle of the impeller is oriented a horizontal direction of the casing. Hosoda et al. teach an air conditioning system employing a multi-blade type fan (2) having a casing (3) (col. 2, L 63-68; col. 3, L 1-5). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the fans of the humidity control system disclosed by Harushige as

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modified to be multi-blade fans as taught by Hosoda et al. such that the fans are disposed so that the center axle of the impeller is oriented in a horizontal direction of the casing in order to provide a means that is old and well known in the art of air conditioning to more effectively move air between the outside and the inside of an area by enabling air to flow through the inlet and outlet openings of the casing.

Consider claim 11. Harushige as modified discloses: an air supplying opening (16) and an inside air inlet opening (17) which are in fluid communication with the indoor space and are provided in the room side panel (15) (i.e. one of lateral plates) of the casing (11) which are orthogonal to the fan side lateral plate, and an air exhausting opening (14) and an outside air inlet opening (13) which are in fluid communication with the outdoor space are provided in the outdoor side panel (12) (i.e. the other of the lateral plates); in the second space, the first heat exchanger (62) disposed above partition member (53) defining a first heat exchange chamber in which the first heat exchanger (62) is accommodated and the second heat exchanger (65) disposed below partition member (53) defining a second heat exchange chamber in which the second heat exchanger (65) is accommodated, the heat exchangers (62) and (65) being defined adjacently side by side in a direction orthogonal to the fan side lateral plate; and a flow path along the first air duct (51) between the outdoor side upper left opening (23) and the interior-of-a-room upper left opening (28) (i.e. a first inflow path) and a flow path along second air duct (52) between the outdoor side lower left opening (24) and the interior-of-a-room lower left opening (29) (i.e. a first outflow path) are provided which extend along one of continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and a flow path along the first air duct (51) between the

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outdoor side upper right opening (21) and the interior-of-a-room upper right opening (26) (i.e. a second inflow path) and a flow path along the second air duct (52) between the outdoor side lower right opening (22) and the interior-of-a-room lower right opening (27) (i.e. a second outflow path) are provided which extend along the other of the continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and the outflow paths are in fluid communication with the first space through fan side communication openings (Harushige, "Detailed Description" paragraphs [0007]-[0031]; Figs. 1-3, 6, 9a & 9b).

Consider claim 12. Harushige as modified discloses: an air supplying opening (16) in fluid communication with the indoor space and an air exhausting opening (17) in fluid communication with the outdoor space are provided in the fan side lateral plate of the casing (11), and an inside air inlet opening (13) and an outside air inlet opening (14) are provided in a lateral plate opposite the fan side lateral plate; in the second space, the first heat exchanger (62) disposed above partition member (53) defining a first heat exchange chamber in which the first heat exchanger (62) is accommodated and the second heat exchanger (65) disposed below partition member (53) defining a second heat exchange chamber in which the second heat exchanger (65) is accommodated, the heat exchangers (62) and (65) being defined adjacently side by side in a longitudinal direction of the fan side lateral plate; and between one of continuous lateral surfaces of the two heat exchange chambers and the lateral plate opposite the fan side lateral plate and a flow path along the first air duct (51) between the outdoor side upper left opening (23) and the interior-of-a-room upper left opening (28) (i.e. a first inflow path) and a flow path along second air duct (52) between the outdoor side lower left opening (24) and the

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interior-of-a-room lower left opening (29) (i.e. a first outflow path) are provided which extend along one of continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and a flow path along the first air duct (51) between the outdoor side upper right opening (21) and the interior-of-a-room upper right opening (26) (i.e. a second inflow path) and a flow path along the second air duct (52) between the outdoor side lower right opening (22) and the interior-of-a-room lower right opening (27) (i.e. a second outflow path) are provided which extend along the other of the continuous lateral surfaces of the two heat exchange chambers and which are superimposedly arranged in a horizontal direction of the casing (11); and the outflow paths are in fluid communication with the first space through fan side communication openings (Harushige, “Detailed Description” paragraphs [0007]-[0031]; Figs. 1-3, 6, 9a & 9b).

While Harushige as modified fails to disclose an inside air inlet opening and an outside air inlet opening being provided in a lateral plate opposite the fan side lateral plate, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an inside air inlet opening and an outside air inlet opening in a lateral plate opposite the fan side lateral plate in order to provide an alternative and adaptable embodiment of the casing to provide humidity control.

Consider claim 13. Harushige as modified discloses the invention as claimed, but fails to disclose that the air supplying fan, arranged such that a fan inlet opening is provided in the lateral side of the fan casing of the air supplying fan, faces either one of the fan side communication openings; and the air exhausting fan is arranged such that a fan inlet opening, provided in the lateral side of the fan casing of the air exhausting fan, faces the other of the fan side

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communication openings. It has been held, however, that the mere rearrangement of parts is an obvious matter of design choice, and an ordinary skilled artisan would have found it obvious at the time of the invention to produce the following arrangement: the air supplying fan, arranged such that a fan inlet opening is provided in the lateral side of the fan casing of the air supplying fan, faces either one of the fan side communication openings; and the air exhausting fan is arranged such that a fan inlet opening, provided in the lateral side of the fan casing of the air exhausting fan, faces the other of the fan side communication openings; in order to effectively supply air to the humidity control system.

6. **Claims 16-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Harushige and Jones as applied to claim 1, and further in view of Maeda et al. (US Patent No. 6,644,059 B2).

Consider claim 16. Harushige as modified discloses first (62) and second (65) heat exchangers as previously discussed having outside-air inflow surfaces (Fig. 1).

Harushige as modified fails to disclose an outdoor filter arranged and formed along the outside-air inflow surfaces of the heat exchangers. Maeda et al. teach a humidification control apparatus having a filter (502) (i.e. an outdoor filter) arranged and formed upstream of an air flow in front of (i.e. along the outside-air inflow surface) of condenser (220) (i.e. a heat exchanger) (col.11, L 45-65; Fig. 2). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the first and second heat exchangers of the humidity control apparatus disclosed by Harushige as modified to have filters upstream of the air flow as taught by Maeda et al. in order to prevent dust and other particulates from entering and causing harm to the system. Additionally, it would have been obvious to one of ordinary skill in the art at

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the time of the invention to provide filters after the heat exchangers (i.e. downstream of the airflow after passing through the heat exchangers) in order to provide filtration (or additional filtration in the case that a filter is also provided before the heat exchanger) to the air flow to further eliminate any dust or particulates.

Consider claim 17. Harushige as modified discloses a first air duct (51) (i.e. a first passageway) in which the first heat exchanger (62) is disposed and a second air duct (52) (i.e. a second passageway) in which the second heat exchanger (65) is disposed; formed in the casing (11) ("Detailed Description" paragraphs [0007]-[0008]; Figs. 1-3).

While Harushige as modified fails to disclose that the outdoor filter includes a first filter part disposed in the first passageway and a second filter part disposed in the second passageway, it would have been obvious to one of ordinary skill in the art at the time of the invention to arrange the filter into two parts in the first and second passageways in order to filter dust and unwanted particulates from both heat exchangers in the humidity control system.

Consider claim 18. Harushige as modified discloses the invention as claimed, but fails to disclose the first and second filter parts being integral with each other, or the filter extending over the outside-air inflow surfaces of both the first and second heat exchangers. It would have been obvious, however, to one of ordinary skill in the art at the time of the invention to extend the filter over the outside-air inflow surfaces of both the first and second heat exchangers in order to effectively prevent dust and particulates from entering and causing harm to the system through either the first or second heat exchangers. Furthermore, it has been held that the use of a one piece construction instead of the structure disclosed in the prior art would be a matter of obvious engineering design choice (*In re Larson*, 340 F.2d 965, 968, 144 USPQ 347, 349 (CCPA

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1965)); therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to provide a filter with integral first and second filter parts in order to effectively eliminate dust and other particulates from passing through the heat exchangers while minimizing the number of parts required for system assembly.

Consider claim 19. Harushige as modified discloses that in the casing (11) the first and second heat exchangers (62) & (65), respectively, are disposed adjacently to each other and the inflow surface of the first heat exchanger (62) and the inflow surface of the second heat exchanger (65) lie on the same plane, wherein the same plane is perpendicular to the fan side lateral plate (Harushige, ann. Fig. 1; Fig 2).

Consider claim 20. While Harushige as modified fails to disclose the casing having a take out opening, it would have been an obvious mechanical expedient to one of ordinary skill in the art at the time of the invention to provide a take out opening in the casing in order to allow the filter to be easily cleaned and/or replaced as needed.

Consider claim 21. Harushige as modified discloses that the humidity control system is capable of switching operation (i.e. via switching mechanism (30), see Harushige “Detailed Description” paragraph [0008]); operable to switch between a first operation in which outside air is capable of being distributed through the first filter part and then through the first heat exchanger (62) and is thereafter supplied to the indoor space while simultaneously room air is distributed first through the second heat exchanger (65) and then through the second filter part and is thereafter discharged to the outside space; and a second operation in which outside air is distributed first through the second filter part and then through the second heat exchanger (65) and is thereafter supplied to the indoor space while simultaneously room air is distributed first

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through the first heat exchanger (62) and then through the first filter part and is thereafter discharged to the outdoor space (Harushige, “Detailed Description”; Figs. 1-3).

Consider claim 22. Harushige as modified discloses that humidity control system is capable of switching operation (i.e. via switching mechanism (30) – Harushige “Detailed Description” paragraph [0008]); operable to switch its operation between a first operation in which outside air is distributed first through the first filter part and then through the first heat exchanger (62) and is thereafter supplied to the indoor space, then through the second heat exchanger (65), and then through the second filter part (124b) and is thereafter discharged to the outside space; and a second operation in which outside air is distributed first through the second filter part and then through the second heat exchanger (65) and is thereafter supplied to the indoor space, then through the first heat exchanger (62), and then through the first filter part and is thereafter discharged to the outdoor space (“Detailed Description”; Figs. 1-3).

While Harushige as modified fails to disclose an indoor filter which is disposed in a passageway, where in the first operation room air is distributed first through the indoor filter, or where in the second operation room air is distributed first through the indoor filter, it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an indoor filter in the passageway in order to prevent dust and particulates in the room air from passing through and possibly causing harm to the humidity control system.

Consider claim 23. Harushige as modified discloses a first air duct (51) (i.e. a first passageway) in which the first heat exchanger (62) is disposed, a second air duct (52) (i.e. a second passageway) in which the second heat exchanger (65) is disposed, And spaces (41), (42),

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(43), (44) and (45) (i.e. room-air supplying passageways) formed in the casing (11) (Harushige, "Detailed Description" paragraphs [0007]-[0008]; Figs. 1-3).

Harushige as modified fail to disclose an indoor filter disposed in the room-air supplying passageway(s); however it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an indoor filter in the room-air supplying passageway in order to prevent dust and particulates in the room air from passing through and possibly causing harm to the humidity control system.

Consider claim 24. Harushige as modified discloses a first air duct (51) (i.e. a first passageway) in which the first heat exchanger (62) is disposed and a second air duct (52) (i.e. a second passageway) in which the second heat exchanger (65) is disposed being in the casing (11); a suction opening (16) which faces the indoor space in fluid connection with chamber room (45) (i.e. an air passageway) located nearer to the indoor space than the first (51) and second (52) passageways in the casing (11) (Harushige, "Detailed Description" paragraphs [0007], [0008] & [0032]; Figs. 1-3).

Harushige as modified fails to disclose an indoor filter disposed in the vicinity of an opening part of the suction opening; however it would have been obvious to one of ordinary skill in the art at the time of the invention to provide an indoor filter in the vicinity of an opening part of the suction opening in order to prevent dust and particulates in the air flow from passing through and possibly causing harm to the humidity control system.

Examiner Suggestions

7. While the examiner has determined that all pending claims as currently presented are unpatentable under 35 USC 103(a), there appears to be allowable subject matter in the

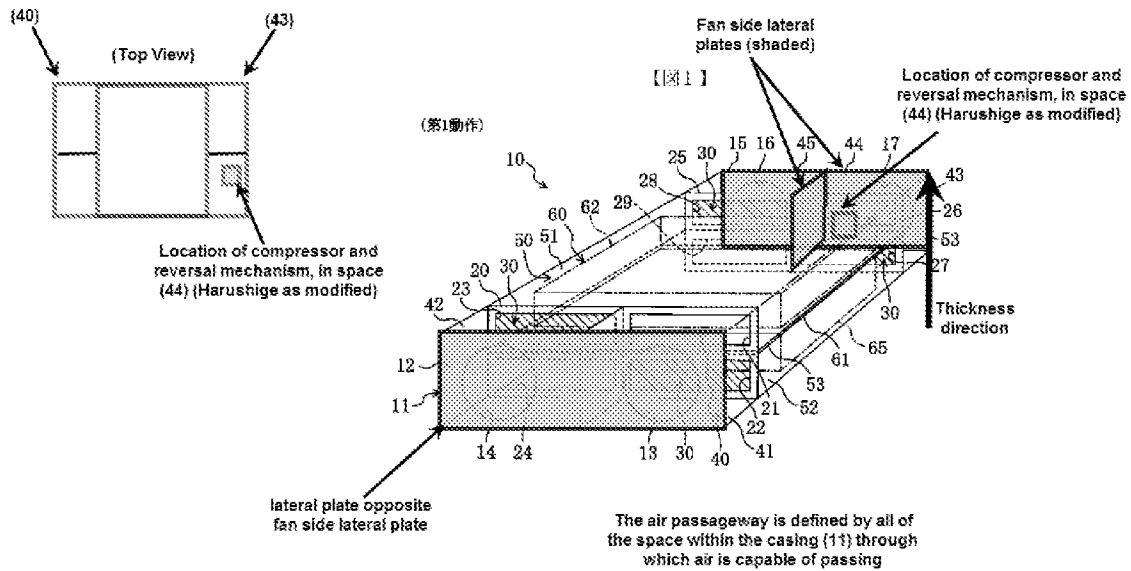
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applicant's original disclosure that could be included in independent claim 1 in order to render the claims allowable. The heat exchangers disclosed by Harushige are disposed on top of each other, depending on one's reference frame, and one flow of air is not allowed to pass from one heat exchanger to another. Harushige discloses that air flows either from opening (16) to (14) through the heat exchanger (65) and from the opening (13) to (17) through the heat exchanger (62), or that air flows from the opening (16) to (14) through the heat exchanger (62) and from the opening (13) to (17) through the heat exchanger (65).

In contrast, the applicant's invention provides the two heat exchangers of the casing arranged in a side by side manner, again, depending on one's reference frame. Additionally, the individual air flows of the applicant's system do not remain in one plane as the flow from an inlet to an outlet; each air flow meanders through the casing and flows from an inlet positioned in an upper area, depending on one's reference frame, of the casing to an outlet positioned in a lower area, again, depending on one's reference frame, of the casing.

The examiner recommends that the applicant consider an amendment to claim 1 that more specifically describes the arrangement of the heat exchangers within the casing, which would likely require a defined reference frame in relation to the casing, and/or more specifically describe the direction of the individual air flows through the casing. The examiner has determined that there are differences between the prior art of record and the applicant's originally disclosed invention, and the applicant is encouraged to call the examiner to schedule and conduct an interview after receipt and review of this final rejection to discuss an amendment to independent claim 1 to put this application in condition for allowance.

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Annotated Figures

Response to Arguments

8. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection necessitated by the applicant's amendment to the claims.

Conclusion

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JUSTIN LOFFREDO whose telephone number is (571) 270-7114. The examiner can normally be reached on M - F 7:30am - 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cheryl Tyler and Frantz Jules can be reached on (571) 272-4834 and (571) 272-6681.

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The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Cheryl J. Tyler/
Supervisory Patent Examiner, Art Unit 3744

/Justin Loffredo/
November 10, 2010